

What is claimed is:

1. A wireless local area network system comprising a plurality of access points and a plurality of client terminals;

wherein each of said plurality of access points comprises:

5 a main unit for communicating with said client terminals,  
a first fault detecting unit for detecting a fault on said main unit, and

10 a disconnection controlling unit for disconnecting said client terminal connected to said access point where said fault was detected by said first fault detecting unit; and

wherein each of said plurality of client terminals comprises:

a transceiver unit for communicating with said access point,  
a search controlling unit for searching for another client terminal to which said client terminal disconnected from said access point is to be connected, and

a connection controlling unit for connecting said disconnected client terminal to said searched client terminal by said search controlling unit.

20 2. The wireless local area network system as defined in Claim 1, wherein each of said client terminals further comprises a repeat controlling unit for controlling communication between said disconnected client terminal and one of said access points connected to said searched client terminal.

25 3. The wireless local area network system as defined in Claim 1, wherein said connection controlling unit, instead of connecting said disconnected client terminal to said searched client terminal, for obtaining communication information from said searched client terminal by said search controlling unit and communicating with another of said access points connected to said searched client terminal.

4. The wireless local area network system as defined in Claim 1,

*Sub B2* → wherein each of said access points further comprising:

a second fault detecting unit for detecting a fault on the other of said access points, and

a permission information generating unit for transmitting permission information permitting said client terminals connected to said access point to accept an emergency identification code, said permission information being transmitted when said second fault detecting unit detects said fault.

5. The wireless local area network system as defined in Claim 4, wherein said connection controlling unit of said disconnected client terminal connects, by using the emergency identification code, said disconnected client terminal to said searched client terminal which has received said permission information.

6. A fault recovery method for use in a wireless local area network system comprising a plurality of access points and a plurality of client terminals, the method comprising the steps of:

detecting, by each of said access points, whether a fault occurs on each of said access points itself;

disconnecting, by said access point which has detected said fault, said client terminal connected thereto;

searching for, by said disconnected client terminal, another of said client terminals to which said disconnected client terminal is to be connected; and

connecting said disconnected client terminal to said searched client terminal.

7. The fault recovery method for use in a wireless local area network system as defined in Claim 6, further comprising the step of controlling, by said searched client terminal, communication between said disconnected client terminal and another of said access points connected to said searched client terminal.

*Pub B2* 8 The fault recovery method for use in a wireless local area network system as defined in Claim 6, comprising, instead of said connecting step, the steps of:

5 obtaining, by said disconnected client terminal, communication information from said searched client terminal; and communicating said disconnected client terminal with one of said access point connected to said searched client terminal.

9. The fault recovery method for use in a wireless local area network system as defined in Claim 6, further comprising the step of, when said access point detects a fault on the other of said access points, transmitting, by said access point, permission information for permitting said client terminals connected to said access point to accept an emergency identification code.

10. The fault recovery method for use in a wireless local area network system as defined in Claim 9, further comprising the step of connecting, by using said emergency identification code, said disconnected client terminal to said searched client terminal which has received said permission information.

11. A recording medium storing therein a computer program for executing a fault recovery process for use in a wireless local area network system comprising a plurality of access points and a plurality of client terminals, the process comprising the steps of:

detecting, by each of said access points, whether a fault occurs on each of said access points itself;

30 disconnecting, by said access point which has detected said fault, said client terminal connected thereto;

searching for, by said disconnected client terminal, another of said client terminals to which said disconnected client terminal is to be connected; and

connecting said disconnected client terminal to said searched

client terminal.

12. The recording medium storing therein a computer program for  
executing the fault recovery process for use in a wireless local  
area network system as defined in Claim 11, further comprising the  
step of controlling, by said searched client terminal,  
communication between said disconnected client terminal and  
another of said access points connected to said searched client  
terminal.

13. The recording medium storing therein a computer program for  
executing the fault recovery process for use in a wireless local  
area network system as defined in Claim 11, comprising, instead  
of said connecting step, the steps of:

obtaining, by said disconnected client terminal,  
communication information from said searched client terminal; and

communicating said disconnected client terminal with one of  
said access point connected to said searched client terminal.

14. The recording medium storing therein a computer program for  
executing the fault recovery process for use in a wireless local  
area network system as defined in Claim 11, further comprising the  
step of, when said access point detects a fault on the other of  
said access points, transmitting, by said access point, permission  
information for permitting said client terminals connected to said  
access point to accept an emergency identification code.

15. The recording medium storing therein a computer program for  
executing the fault recovery process for use in a wireless local  
area network system as defined in Claim 14, further comprising the  
step of connecting, by using said emergency identification code,  
said disconnected client terminal to said searched client terminal  
which has received said permission information.